

Abstract

A magnetic sensor arrangement (1), having magnetically sensitive sensor elements (7, 8) whose electrical properties are changeable as a function of a magnetic field that a moving, passive transmitter element (11) is able to influence. The magnetic sensor arrangement (1) has two sensor elements (7, 8) in a gradiometer arrangement that are each respectively associated with one of two magnetic regions (4, 5) of a permanent magnet embodied in the form of a gap magnet (2; 20; 23), which regions are spaced apart from each other by a predetermined distance (sa). The regions (4, 5) and the gap magnet (2; 20; 23) – in terms of the for example wedge-shaped embodiment, the dimensions (h, b, t), the gap width (sa), the gap depth (st), and their positions in relation to the sensor elements (7, 8) – are situated so as to minimize the offset of the output signal of the sensor elements (7, 8) in the gradiometer arrangement.

(Fig. 7)